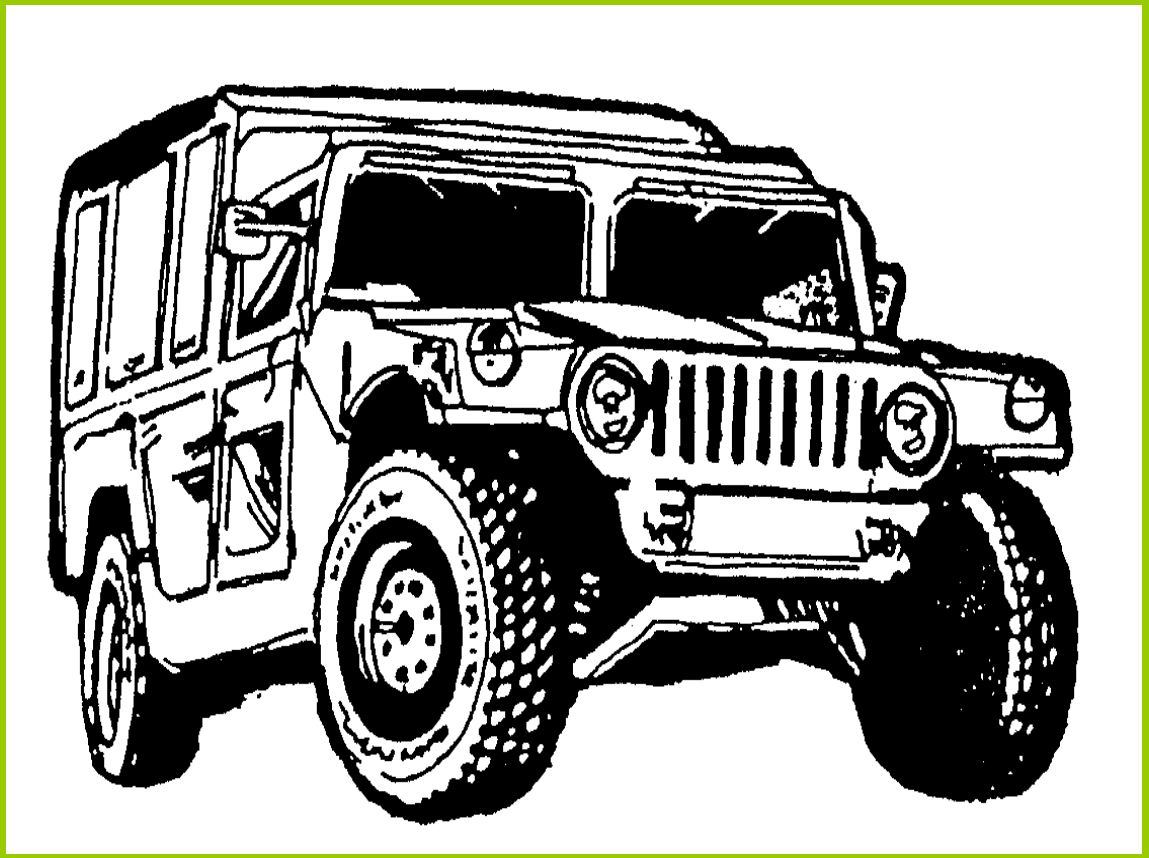
SUPERVISE PREVENTIVE MAINTENANCE CHECKS AND SERVICES



Safety/Risk Assessment

SAFETY REQUIREMENTS: None

RISK ASSESSMENT LEVEL: Low

ENVIRONMENTAL CONSIDERATIONS: None

CLEARANCE OR ACCESS: Unrestricted / Unclassified

CLASSROOM CONSIDERATIONS:

- Fire Exit location
- No eating or tobacco use in class
- Cell phones off

Terminal Learning Objective

- Action: Supervise Preventive Maintenance Checks and Services (PMCS).

- Conditions: In a classroom environment, given applicable references and classroom instruction.

- Standard: Ensure PMCS is performed IAW Army standards in order to maintain optimum equipment performance and readiness. Students must attain a minimum of 70% on the Performance Based (Written) Test to successfully complete this block.

Could PMCS have prevented this?

Soon after leaving the release point, the driver noticed an unusual vibration. The vehicle's front wheel had began to come off. Did this driver fail to properly perform PMCS?

Preventive Maintenance Checks and Services

PMCS is the care, servicing, inspection, detection, and correction of minor faults before these faults cause serious damage, failure, or injury. The procedure and the category of maintenance to perform PMCS are found in the -10 and -20 equipment technical manuals and lubrication orders.

Enabling Learning Objective A

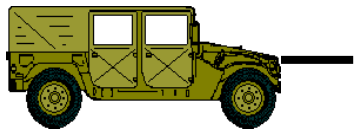
- Action: Discuss the components of a command maintenance program.

- Conditions: In a classroom environment, given applicable references and classroom instruction.

- Standard: Without references, explain the six factors of a command maintenance program and identify the essential items needed to conduct PMCS.

Why PMCS?

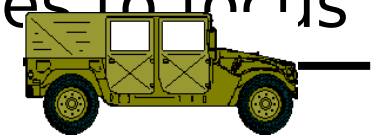
- Maintain unit readiness
- Identify and correct equipment faults
- Determine FMC vs. NMC
- Perform required services
- Ensures early detection of faults
- Anticipates maintenance requirements
- Army Regulation directed



PMCS

➢ Maintenance Factors	Essential Items
• Command Emphasis • Supervisors • Training • Time • Motivation • Resources	• The Equipment • Technical Manuals • DA Form 5988-E •or • DA Form 2404

- A command maintenance program ensures that all vehicles and equipment receive thorough weekly inspections.
- Units must set specific objectives to focus the efforts during command maintenance.



Fault Identification & Diagnosis

- Identification
  - PMCS
  - AOAP
  - Services
  - Readiness/ Command Checks
  - Malfunctions

- Diagnosis
  - Verify fault/deficiency
  - Identify cause
  - Identify repair requirements
  - Identify MAC repair category
  - Identify parts requirements

TM XX-10/XX-20 Maintenance Standard

- Fully Mission Capable (FMC)
  - Faults identified using PMCS tables
  - On-hand parts installed/maintenance complete
  - Required parts are on valid requisition
  - Higher maintenance on valid work request
- All services performed
- All urgent Modification Work Orders (MWOs) are applied
- All Basic Issue Items (BII)/Components of End Items (COEI) on-hand and serviceable or on a valid requisition

Check on Learning ELO-A

Q. What factors influence a successful unit maintenance program?

- Command Emphasis
- Supervisors
- Training
- Time
- Motivation
- Resources (slide-8)

Q. What must true for a vehicle to meet the Army maintenance standard of TM -10/-20?

-Fully Mission Capable (FMC)

-Faults identified using PMCS tables

-On-hand parts installed/maintenance complete

-Required parts are on valid requisition

-Higher maintenance on valid work request

-All services performed

-All urgent Modification Work Orders (MWOs) are applied

-All Basic Issue Items (BII)/Components of End Items (COEI) on-hand and serviceable or on a valid requisition

Enabling Learning Objective B

- Action: Discuss PMCS responsibilities for key unit personnel.

- Conditions: In a classroom environment, given applicable references and classroom instruction.

- Standard: Without references, identify the key maintenance personnel and discuss their roles and responsibilities.

Key Personnel

Commander/1SG

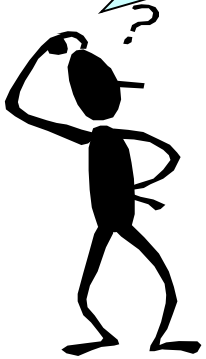
Unit Maintenance Officer/NCO

Platoon Sergeant/Platoon Leader

Squad Leader/Section Chief/Team Chief

Operator/Crew

Who *is* responsible for PMCS?



Everyone!

Unit and individual discipline is critical for a quality PMCS program!

Check on Learning ELO-B

Q. What items are critical for a quality PMCS program?

Unit and individual discipline (slide-13)

Q. Who is responsible for PMCS?

Everyone (slide-13)

Enabling Learning Objective C

- Action: Introduction to DA Form 5988-E / DA Form 2404 and the PMCS charts found in -10 Technical Manuals.

- Conditions: In a classroom environment, given applicable references and classroom instruction.

- Standard: Without references, complete DA Form 5988-E / DA Form 2404 and demonstrate an understanding of using the appropriate technical manual.

DA FORM 5988-E

DATE: 20010817 EQUIPMENT MAINTENANCE AND INSPECTION WORKSHEET DA FORM 5988-E

W45U7D D TROOP, 6TH CBAC

EQUIPMENT DATA

ADMIN NUM: D89 EQUIP SERIAL NUM: 042092
EQUIP MODEL: M998 REGISTRATION NUM: NG2Y1R
EQUIP NOUN: TRK UTL CGO 1.25T 4X4 TYPE INSPECTION: D
EQUIP NSN: 2320011077155 CURRENT READING: M 010880

	NUMBER	DATE	CHANGE NUMBER
PUBLICATION:	TM 9-2320-280-10-HR	05/99	00
PUBLICATION:	TM 9-2320-280-10	01/96	03

INSPECTORS LIC #:_____ TIME: SIGNATURE:_____ TIME:_____

SERVICE DUE DATA

	TYPE	DATE	MI/ KM/ HR
TYPE PMCS DUE:	A	20020416	M 16558
NEXT OIL ANALYSIS DUE:		--------	0
NEXT LUBRICATION DUE:		--------	0
NEXT SPECIAL SERVICE DUE:		--------	0

PARTS REQUESTED

FAULT	DOC NUM	NIIN	NOUN	QTY DUE/REC	STATUS DATE	P R I	D L C
0114	1205 0029	011899725	DOOR, VEHIC	00001 -----	BB20010729	----	12 N
0111	1227 0025	013147834	CUSHION, SE	00001 -----	--------	----	12 N

MAINTENANCE FAULTS

ITEM NUM	FAULT DATE	FAULT STATUS	FAULT DESCRIPTION	CORRECTIVE ACTION	OPER HRS	LIC #
0111	20010815	/	PASSENGER SEAT BACK MISSI		__	_____
0114	20010724	/	R/S DOOR WINDOW SPLIT		__	_____
0115	20010817	X	L/F GEARED HUB DAMAGED		__	_____
5	20010817	/	brake system leaking			
_____	_____	___	_____	_____	__	_____

Equipment Data

Given by the system
Verified by operator/crew

Service Due Data

Parts Requested

List of parts ordered against faults

Maintenance Faults

DA FORM 5988-E

DATE: 20010817 EQUIPMENT MAINTENANCE AND INSPECTION WORKSHEET DA FORM 5

W45U7D D TROOP, 6TH CBAC

EQUIPMENT DATA

ADMIN NUM:	D89	EQUIP SERIAL NUM:	042092
EQUIP MODEL:	M998	REGISTRATION NUM:	NG2Y1R
EQUIP NOUN:	TRK UTL CGO 1.25T 4X4	TYPE INSPECTION:	D
EQUIP NSN:	2320011077155	CURRENT READING:	M 010880

	NUMBER	DATE	CHANGE NUMBER
PUBLICATION:	TM 9-2320-280-10-HR	05/99	00
PUBLICATION:	TM 9-2320-280-10	01/96	03

INSPECTORS LIC #:_____ TIME:_____ SIGNATURE:_____ TIM

SERVICE DUE DATA

	TYPE	DATE	MI/ KM/ HR
TYPE PMCS DUE:	A	20020416	M 16558
NEXT OIL ANALYSIS DUE:		--------	0
NEXT LUBRICATION DUE:		--------	0
NEXT SPECIAL SERVICE DUE:		--------	0

PARTS REQUESTED

FAULT	DOC NUM	NIIN	NOUN	QTY DUE/REC	STATUS	DATE
0114	1205 0029	011899725	DOOR, VEHIC	00001	-----	BB20010
0111	1227 0025	013147834	CUSHION, SE	00001	-----	-----

MAINTENANCE FAULTS

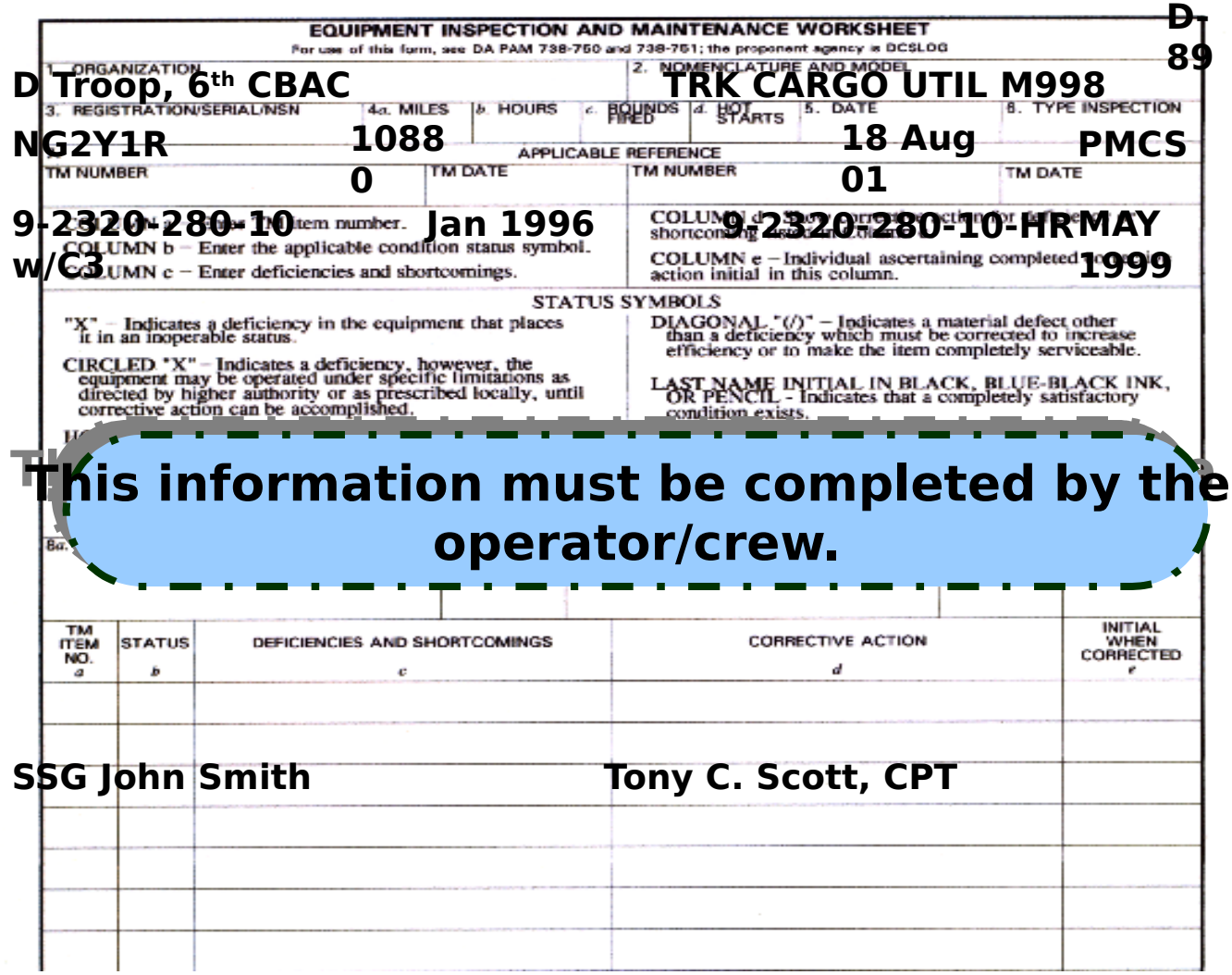
ITEM NUM	FAULT DATE	FAULT STATUS	FAULT DESCRIPTION	CORRECTIVE ACTION
0111	20010815	/	PASSENGER SEAT BACK MISSI	
0114	20010724	/	R/S DOOR WINDOW SPLIT	
0115	20010817	X	L/F GEARED HUB DAMAGED	
5	20010817	/	brake system leaking	

X	**Equipment is "Not Fully Mission Capable."**
(X)	**Indicates a deficiency. However equipment may be operable under, specific limitations as directed by the commander until corrective action can be accomplished.**
/	**Indicates a material defect other than a deficiency that must be corrected for item to make the item completely serviceable.**
—	
MJD	**Inspection, check or MWO is due, but not yet accomplished.**
	Initials indicate that an item has

Who Initials What?

What	Who
Faults that have been corrected	The Mechanic
After review of form	The Inspector (Motor Sergeant)
Limited operations entries	The Commander

DA Form 2404, Blocks 1-7



EQUIPMENT INSPECTION AND MAINTENANCE WORKSHEET

For use of this form, see DA PAM 738-750 and 738-751; the proponent agency is DCSLOG

D-89

1. ORGANIZATION: D Troop, 6th CBAC

2. NOMENCLATURE AND MODEL: TRK CARGO UTIL M998

3. REGISTRATION/SERIAL/NSN: NG2Y1R

4a. MILES: 1088

b. HOURS:

c. ROUNDS FIRED:

d. HOT STARTS:

5. DATE: 18 Aug

6. TYPE INSPECTION: PMCS

APPLICABLE REFERENCE

TM NUMBER	TM DATE	TM NUMBER	TM DATE
9-2320-280-10 w/C3	Jan 1996	9-2320-280-10-HR	MAY 1999
0		01	

COLUMN a – Enter the item number.

COLUMN b – Enter the applicable condition status symbol.

COLUMN c – Enter deficiencies and shortcomings.

COLUMN e – Individual ascertaining completed corrective action initial in this column.

STATUS SYMBOLS

"X" – Indicates a deficiency in the equipment that places it in an inoperable status.

CIRCLED "X" – Indicates a deficiency, however, the equipment may be operated under specific limitations as directed by higher authority or as prescribed locally, until corrective action can be accomplished.

DIAGONAL "(/)" – Indicates a material defect other than a deficiency which must be corrected to increase efficiency or to make the item completely serviceable.

LAST NAME INITIAL IN BLACK, BLUE-BLACK INK, OR PENCIL – Indicates that a completely satisfactory condition exists.

This information must be completed by the operator/crew.

TM ITEM NO. a	STATUS b	DEFICIENCIES AND SHORTCOMINGS c	CORRECTIVE ACTION d	INITIAL WHEN CORRECTED e

SSG John Smith

Tony C. Scott, CPT

Technical Manuals

Technical Manual

Corps (Ordnance)

Wheeled

Model

Level Maintenance

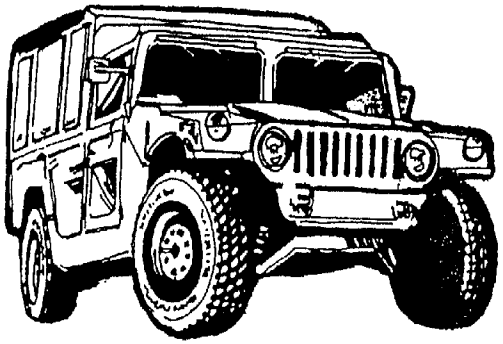
TM 9-2320-280-10, Operator

20, Unit

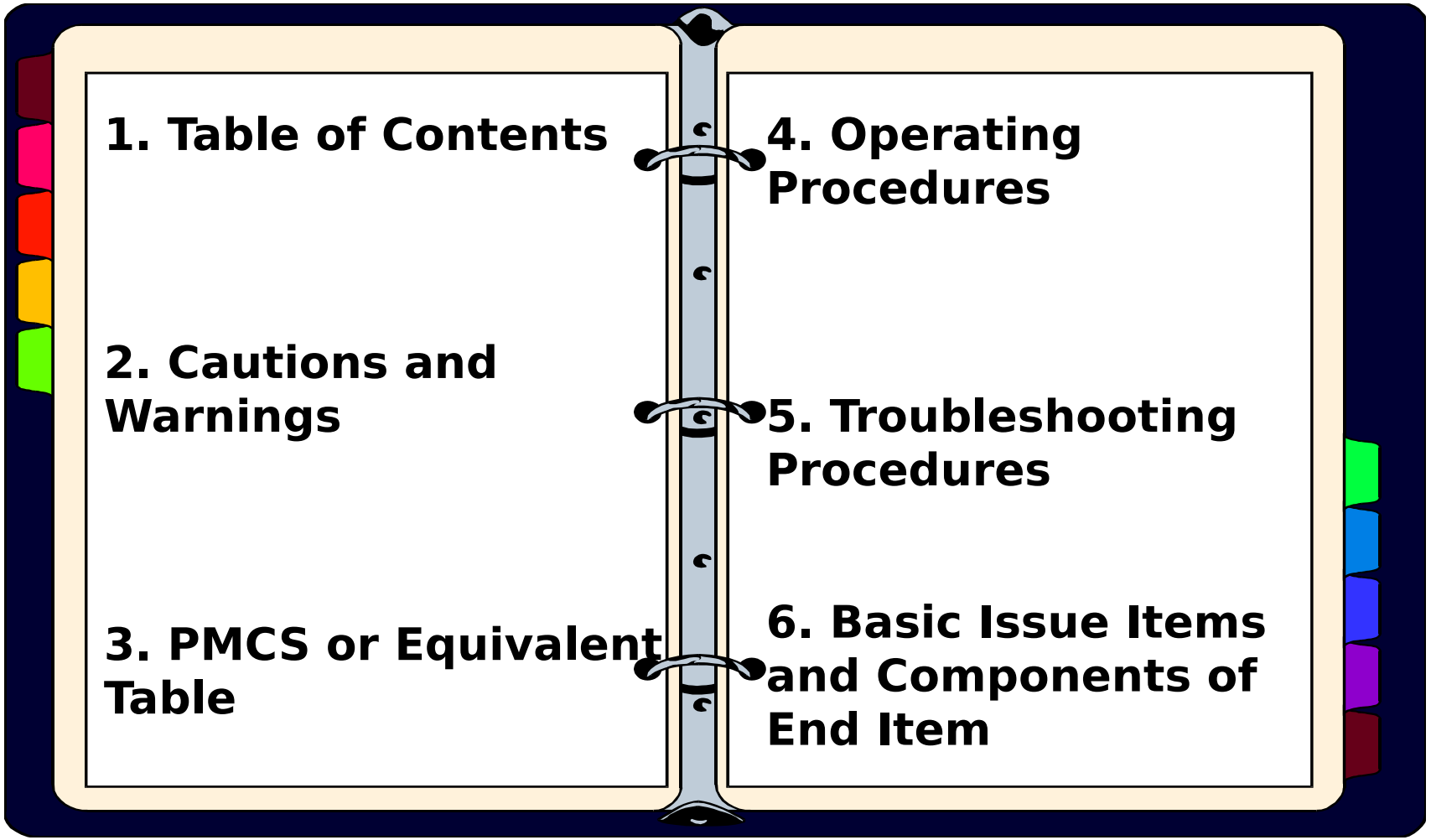
), DS

), GS

-XXP, Parts



10 Operators Manual, Basic Sections



PMCS Chart, Item Number

TM 9-2320-280-10

Table 2-2 Operator/Crew Preventive Maintenance Checks and Services

NOTE: These checks are to be made in the order listed, within designated interval.
B-Before operation D-During operation A-After operation W-Weekly M-Monthly

ITEM NO.	INTERVAL B	D	A	W	M	ITEM TO BE INSPECTED PROCEDURE: Check for and have repaired, filled, or adjusted as needed	EQUIPMENT IS NOT READY/ AVAILABLE IF:
						NOTE Perform Weekly (W) as well as Before (B) PMCS if: (1) You are the assigned operator but have not operated the vehicle since the last weekly PMCS; or (2) You are operating the vehicle for the first time.	
						EXTERIOR OF VEHICLE	
1						EXTERIOR	
	•					a. Visually check frame, Crossmembers and underbody supports for missing hardware, cracks, brakes, and rusted-through damage that would impair operations.	**Frame rails, cross-members, or under-body supports are missing hardware, cracked, broken, or rusted-through.**

Items in this column are for reference.

PMCS Chart, Interval

TM 9-2320-280-10

Table 2-2 Operator/Crew Preventive Maintenance Checks and Services

NOTE: These checks are to be made in the order listed, within designated interval.

B-Before operation D-During operation A-After operation W-Weekly M-Monthly

ITEM NO.	INTERVAL B	D	A	W	M	ITEM TO BE INSPECTED PROCEDURE: Check for and have repaired, filled, or adjusted as needed	EQUIPMENT IS NOT READY/ AVAILABLE IF:
						NOTE Perform Weekly (W) as well as Before (B) PMCS if: (1) You are the assigned operator but have not operated the vehicle since the last weekly PMCS; or (2) You are operating the vehicle for the first time.	
						d. Check condition and/or operation of:	**Windshield or side windows cracked sufficiently to impair operator's vision.**
		•				(1) Windshield and windows	
		•				(2) Windshield wiper arms and blades	
	•					(3) Mirrors	
				•		(4) All locking and fastening devices	

This column describes when, and how often, the check is to be made.

PMCS Chart, Items to be Inspected and Procedure

TM 9-2320-280-10

Table 2-2 Operator/Crew Preventive Maintenance Checks and Services

NOTE: These checks are to be made in the order listed, within designated interval.

B-Before operation D-During operation A-After operation W-Weekly M-Monthly

ITEM NO.	INTERVAL B	D	A	W	M	ITEM TO BE INSPECTED PROCEDURE: Check for and have repaired, filled, or adjusted as needed	EQUIPMENT IS NOT READY/ AVAILABLE IF:
						NOTE Perform Weekly (W) as well as Before (B) PMCS if: (1) You are the assigned operator but have not operated the vehicle since the last weekly PMCS; or (2) You are operating the vehicle for the first time.	
						d. Check condition and/or operation of:	**Windshield or side windows cracked sufficiently to impair operator's vision.**
		•				(1) Windshield and windows	
		•				(2) Windshield wiper arms and blades	
	•					(3) Mirrors	
				•		(4) All locking and fastening devices	

This column contains a brief description on how the check is performed.

PMCS Chart, Equipment is not Ready/Available if:

TM 9-2320-280-10

Table 2-2 Operator/Crew Preventive Maintenance Checks and Services

NOTE: These checks are to be made in the order listed, within designated interval.

B-Before operation D-During operation A-After operation W-Weekly M-Monthly

ITEM NO.	INTERVAL B	D	A	W	M	ITEM TO BE INSPECTED PROCEDURE: Check for and have repaired, filled, or adjusted as needed	EQUIPMENT IS NOT READY/ AVAILABLE IF:
						NOTE Perform Weekly (W) as well as Before (B) PMCS if: (1) You are the assigned operator but have not operated the vehicle since the last weekly PMCS; or (2) You are operating the vehicle for the first time.	
						d. Check condition and/ or operation of:	**Windshield or side windows cracked**
		•				(1) Windshield and windows	**sufficiently to impair operator's vision.**
		•				(2) Windshield wiper arms and blades	
	•					(3) Mirrors	
				•		(4) All locking and fastening devices	

2-62

This column contains the criteria that causes the equipment to be classified as NMC.

Fluid Leakage

- Wetness around seals, gaskets, fittings, or connections indicates leakage. A stain also denotes leakage. Use the following as a guide:

  - **Class I.** Leakage indicated by wetness or discoloration, but not great enough to form drops.

  - **Class II.** Leakage great enough to form drops, but not enough to cause drops to drip from item being checked/inspected.

  - **Class III.** Leakage great enough to form drops that fall from the item being checked/inspected.

- **CAUTION**

Operation is allowable with Class I or II leakage except for brake

Check on Learning ELO-C

Q. What does the status symbol “X” indicate?

Equipment is “Not Fully Mission Capable.” (slide-17)

Q. What does the status symbol “/” indicate?

Equipment has a “material defect” other than a deficiency (slide-17)

Q. What can be identified by publication TM 9-2320-XXX-XXP?

Parts, wheeled vehicle Technical Manual (Slide 19)

Q. What class leak is indicated by leakage great enough to form drops, but not enough to cause drops to drip from item being inspected?

Class II (slide-25)

Enabling Learning Objective D

- Action: State the Preventative Maintenance Checks and Services (PMCS) workflow.

- Conditions: In a classroom environment, given applicable references and classroom instruction.

- Standard: Without references, describe the Preventative Maintenance Checks and Services (PMCS) workflow.

PMCS Process

Operator/Crew

Pe

Enters Faults

Updates Form

Squad Leader / Immediate Supervisor

Spot checks:

- **PMCS**
- **Faults**
- **Corrections**
- **Updated forms**

Maintenance Supervisor

Priorit

and inspects work by checking:

- **Repairs**
- **Parts**
- **Maintenance actions**

Mechanic

Diagnoses faults
Corrects faults
Determines parts required
Performs maint

Clerk

- **Adds/modifies fault data**
- **Request parts**
- **Request evac job orders**
- **Indicates receipt and installation of parts**
- **Updates 5988-E**

Check on Learning ELO-D

Q. Who is responsible for adding or modifying fault data on the DA Form 5988-E?

The Clerk (slide-28)

Q. What is the Platoon Leader responsible for in the PMCS Process?

Spot-checks (slide-28)

Q. Who is responsible for performing PMCS?

Operator/Crew (slide-28)

Enabling Learning Objective E

- Action: Review the Non-Mission Capable (NMC) Report.

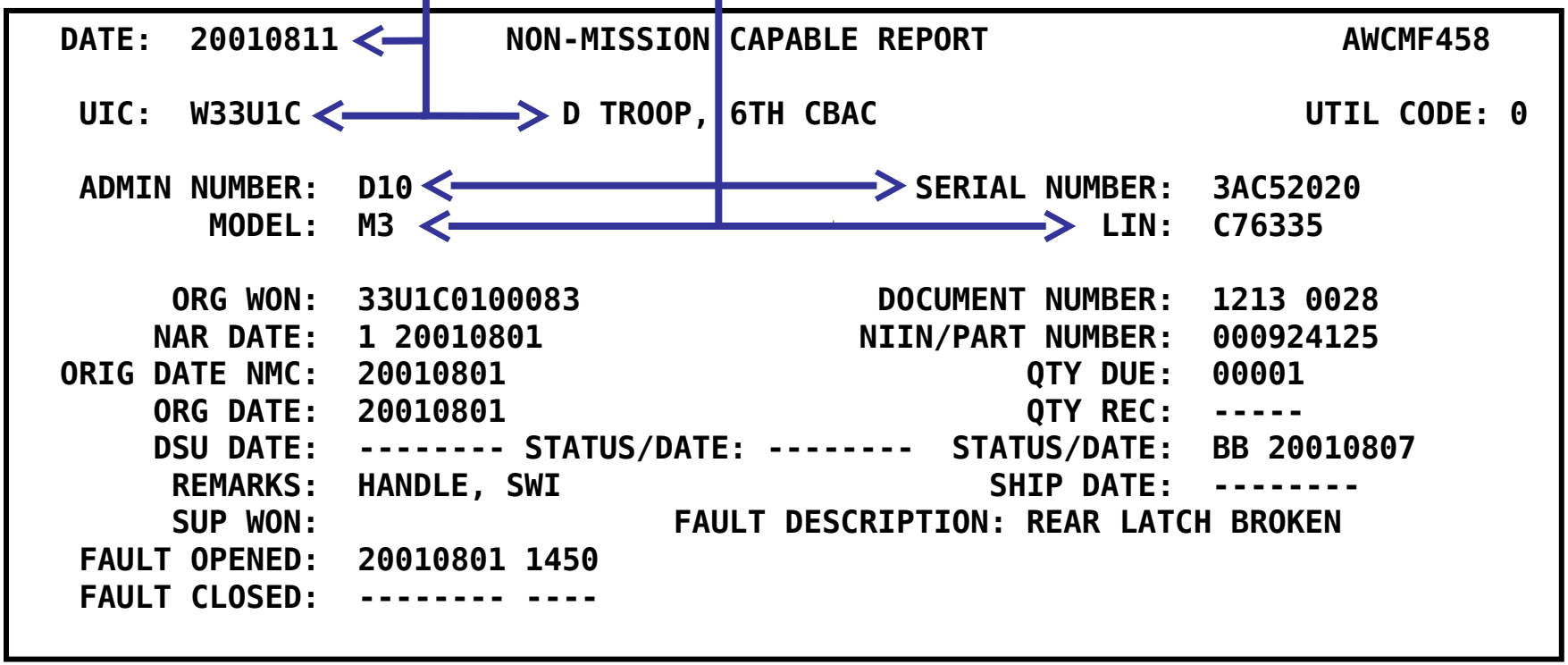
- Conditions: In a classroom environment, given applicable references and classroom instruction.

- Standard: Students must be able to identify the sections of the NMC Report correctly and interpret the data.

Non-Mission Capable Report

The top portion identifies the unit and date of report.

Administrative Data is listed above the first entry for each piece of equipment.



```
DATE:  20010811          NON-MISSION CAPABLE REPORT                AWCMF458

 UIC:  W33U1C          D TROOP, 6TH CBAC                    UTIL CODE: 0

 ADMIN NUMBER:  D10                          SERIAL NUMBER:  3AC52020
       MODEL:  M3                                   LIN:  C76335

     ORG WON:  33U1C0100083                DOCUMENT NUMBER:  1213 0028
    NAR DATE:  1 20010801                 NIIN/PART NUMBER:  000924125
ORIG DATE NMC:  20010801                          QTY DUE:  00001
    ORG DATE:  20010801                           QTY REC:  -----
    DSU DATE:  -------- STATUS/DATE: --------  STATUS/DATE:  BB 20010807
     REMARKS:  HANDLE, SWI                       SHIP DATE:  --------
      SUP WON:                  FAULT DESCRIPTION: REAR LATCH BROKEN
 FAULT OPENED:  20010801 1450
 FAULT CLOSED:  -------- ----
```

The Non Mission Capable (NMC) Report is a company-level report that lists all NMC and administratively/safety

Check on Learning ELO-E

Q. What is the Non-Mission Capable Report?

The Non Mission Capable (NMC) Report is a company- level report that lists all NMC and administratively/safety deadlined equipment. (slide-31)

Q. What Administrative Data can be found on the Non-Mission Capable Report for each piece of deadlined equipment?

Admin Number, Model, Serial Number and LIN (line item number). (slide-31)

Questions?